

Amendments to and Listing of the Claims:

Please cancel non-elected claims 10-33, without prejudice, and amend claims 1 and 34, without prejudice, as indicated in the following listing of claims, where stricken through language is being deleted and underlined language is being inserted:

1. (Currently Amended) ~~A~~An oligonucleotide array that comprises a set of oligonucleotide probes for detecting and discriminating at least one target polynucleotide ~~selected~~ from a plurality of different target polynucleotides, wherein a respective target polynucleotide corresponds to a single polynucleotide having at least one target sequence or a group of related polynucleotides each having at least one target sequence, said set including a collection of different promiscuous probes, wherein a respective promiscuous probe is located at an individual address of the oligonucleotide array and hybridizes to a target sequence shared between at least two of said target polynucleotides, wherein at least one target polynucleotide comprises at least two target sequences shared with one or more other target polynucleotides, wherein the number of probes in the set is less than the number of target polynucleotides in said plurality of target polynucleotides, ~~and~~ wherein a predefined combination of promiscuous probes hybridizes to said at least two target sequences, and wherein said hybridization of said predefined combination ~~providing~~ provides specificity of detection ~~of~~ and discriminates said at least one target polynucleotide from said plurality of different target polynucleotides.

2. (Original) The set of probes of claim 1, comprising a plurality of different predefined combinations of probes, each providing specificity of detection of a different target polynucleotide.

3. (Previously Presented) The set of probes of claim 1, further comprising at least one non-promiscuous probe that hybridizes to a unique target sequence of a single target polynucleotide.

4. (Previously Presented) The set of probes of claim 1, comprising at least one probe that hybridizes to a pivot sequence, which divides two or more polynucleotides into distinct groups.

5. (Previously Presented) The set of probes of claim 1, comprising at least one degenerate oligonucleotide probe that hybridizes to a redundant target sequence.

6. (Previously presented) The set of probes of claim 1, wherein the probes are immobilized on a solid support.

7. (Original) The set of probes of claim 6, wherein the probes are in the form of a nucleic acid array.

8. (Original) The set of probes of claim 7, wherein the probes are in the form of a high-density nucleic acid array.

9. (Original) The set of probes of claim 6, wherein the probes are linked to the support via a spacer.

10. – 33. (Canceled)

34. (Currently amended) ~~A~~An oligonucleotide array that comprises a set of oligonucleotide probes for detecting and discriminating at least one target polynucleotide selected from a plurality of different target polynucleotides, wherein a respective target polynucleotide corresponds to a single polynucleotide having at least one target sequence or a group of related polynucleotides each having at least one target sequence, said set including a collection of different promiscuous probes, wherein a respective promiscuous probe is located at an individual address of the oligonucleotide array and hybridizes to a target sequence shared between at least two of said target polynucleotides, wherein at least two target polynucleotides each comprises at least two target sequences, at least one of which is shared with one or more other target polynucleotides, wherein the number of probes in the set is less than the number of target polynucleotides in said plurality of target polynucleotides, and wherein a predefined combination of promiscuous probes hybridizes to said at least two target sequences, and wherein said hybridization of said predefined combination providing provides specificity of detection of and discriminates a respective one of said at least one target polynucleotide from said plurality of different polynucleotides.